

tional data stream. Another internal space is 53 wherein a trigger level 54 is hinged and spring-loaded against an opening in key ring 53. By pressing lever 54 downwards the ring is unlatched and can now turn in either direction, permitting keys to be changed. Finally, there is a spare-out space for a long-life rechargeable battery 56 which is used for maintaining memory states in the encapsulated circuitry. The read/write unit with which this data carrier cooperates will be described by means of FIGS. 8 and 9 further below. In the area 52, FIG. 2, space exists for the I C chips and subsidiary items. FIGS. 4 and 5 show essentially the same unit equipped with a display 80 and the already discussed buttons C R T D. Both the afore-described simple and the multi-mode pay tablet may be used in the same data transfer terminal of FIG. 8. As can be seen in FIG. 5, the pushbuttons are recessed but can be actuated by means of a pencil or the like. To assure readiness at all times to operate the buttons, the key ring 75 may hold a pin 81 having a displaceable spring 82. The pin can be taken off easily for the intended use and be just as easily put back on the key ring. (FIG. 4a).

While the circuit of FIGS. 1A and 1B could be added to the circuitry for example as envisaged in patent application Nos. 7931208 or 8004546 or 8028824 which are devoted to the data processing of the data tablet at a point of sale terminal, it is probably more economic to design a single dedicated data processing chip capable of performing all the functions. The principle of this concept is represented in the functional diagram FIG. 6 which is largely self-explanatory. According to the security principles explained in the cited patent application at least two number comparisons are performed for each point of sale transaction, and at least four such comparisons when the data tablet is updated with added value. A similar comparison is required for verification of the personal identity number. It is therefore possible to unify all 'word recognition' operations. More such comparisons occur when remnant money value is to be returned to the originating account within the data tablet. It is therefore desirable to unite all word recognition operations. Similar contractions might be made with respect to the basic processor program as also the internal data transfer and display functions. Current batteries can stand only a definite maximum charging current. To ensure that this current is not exceeded when energy is transferred from a terminal, the capacitor 93 is provided which rapidly accepts a charge at a higher voltage. The discharge of the capacitor then occurs via field effect transistor 94 into battery 97. (©) The feedback line is important in the context since it senses the voltage level of the capacitor 93 and causes all clock data to be disabled until line 98 at input e goes high. This ensures that the starting voltage level is sufficient.

FIG. 7 represents an alternative configuration of a data carrier. It consists of a steel frame 100. On its upper face are inserted the push buttons 103 and the display window 102. A handle 101 allows insertion of a standard key ring. On the rearside the flanges show lips 107. The interior contains potted circuitry and, to the right of the buttons, equally potted are data and energy transfer coils. The interior plastic part is item 104. A paper card containing information useful when the item is lost, may be placed between lips 107. This item is marked 105.

Finally, an example for checking the data tablet rapidly is shown in FIGS. 8 and 9. The tablet is introduced by sliding it upright along the smooth table surface 68 between sections 60A and 60B from right to left. When reaching key section 60s, the same will dovetail with the

corresponding recess portions 50s (FIG. 2) or 70s (FIG. 4) respectively. Just before the moved data tablet is stopped by stopping rod 64, the spring loaded latch levers 61A and 61B snap inwards and so confine the data tablet to the precise area where it should be as long as the data transfer lasts. This period lasts a fraction of a second whereafter the stopping rod 64 is withdrawn rapidly allowing the tablet to be moved out in a forward direction.

This piston 64 is in this example part of a pneumatic actuator 63 with the pneumatic supply tube 65 and the electro-pneumatic valve 66 which receives its supply through pipe 69.

The electrical information transfer occurs inductively by means of sensor coils (not shown) whose axis are indicated by center lines 67 and 68 which, in the read/-write position, are congruent with the center lines of the coils 57 and 58 of FIG. 2.

What is claimed is:

1. A portable data carrying and transfer device capable of communicating with an external data transfer device, comprising:

display means;

memory means for storing data having a plurality of memory stores;

processing means for processing data in said memory means and for shifting data from a first one of said memory stores to a second one of said memory stores;

transfer means for enabling bi-directional data exchange between said memory means memory stores and an external data transfer device;

manually actuatable memory accessing means for (a) selectively displaying on said display means the data in any one of said memory stores, for (b) enabling and defining data to be transferred by said transfer means, for (c) enabling receipt of account data from an external data transfer device via said transfer means, and for (d) enabling and defining data to be transferred by said processing means; and

a pocket-sized housing including said display means and providing support for said memory means, said processing means, said transfer means, and said manually actuatable accessing means.

2. A portable data carrying and transfer device as in claim 1, wherein:

one of said memory means stores contains a predetermined identification number and said other stores are secured, such that said number must first be manually entered by said memory accessing means and compared by said processing means in order to access any of said secured memory means stores.

3. A portable data carrying and transfer device as in claim 2, wherein:

at least one of said other memory means stores is unsecured, such that it may be accessed for display or data transfer first entering a predetermined identification number.

4. A portable data carrying and transfer device as in claim 3, wherein:

data may be shifted from one of said secured memory means stores to one of said unsecured memory means stores, by said memory accessing means and said processing means.

5. A portable data carrying and transfer device as in claim 4, wherein: